

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL

Conditional Major, Construction / Operating

Permit: F-07-057

Close the Loop, Inc.

Hebron, KY 41048

3/18/08

Julian D. Breckenridge, Reviewer

SOURCE ID: 21-015-00162

AGENCY INTEREST: 97932

ACTIVITY: APE20070001

SOURCE DESCRIPTION:

Close the Loop, Inc. proposes to own and operate a production facility in Hebron, Kentucky, to recycle spent copier toner and printer ink cartridges. The facility will recover toner powder, ink, plastics, metals and foam. Most of the recovered materials will be sold to off-site companies for use as raw materials in manufacturing processes. Close the Loop will also manufacture a plastic-based product called eWood that is made from recovered plastic, toner powder and ink. In the process, the toner cartridges will be received and cracked open by a shredder, causing the toner powder to be released and collected by a dust collector. The shells of the toner cartridges are crushed, and various plastic and metal components are collected. Eventually, the plastic pieces are processed in a grinder to size them for extrusion in the eWood line or for resale. The ink jet cartridges will also be received and disassembled in order to remove the ink. The ink is collected in drums or totes for reuse in the pelletizing line. The plastic and metal components and polyurethane foam of the cartridges are collected while the plastic shells are processed in a grinder to size them for extrusion in the eWood line or for resale. In the pelletizing line, the toner and ink collected are mixed in a mixer. The mixed material is then pressure-formed into small pellets for reuse in the eWood lines or for resale to off-site users. The grinded plastic and pellets are used as feedstock for the extruder to produce eWood.

On September 27, 2007 the Division of Air Quality received an application from Close the Loop, Inc. for an initial conditional major permit under 401 KAR 52:030. The application was deemed complete on December 17, 2007. The source has maximum allowable emissions of 162 tons per year of particulate matter (PM/PM₁₀), based on emission limits from 401 KAR 59:010 and maximum uncontrolled emissions of 221 tons per year of volatile organic compounds (VOC). The source requested VOC and PM₁₀ limits below major source thresholds. Even though potential emissions for single hazardous air pollutants (HAP) and combined HAP are below major source thresholds, the source also requested federally enforceable limits for single and combined HAPs.

PUBLIC AND U.S. EPA REVIEW:

On February 7, 2008, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *Boone County Recorder* in Florence, Kentucky. In addition, notification of the issuance of the draft permit was sent to the U.S. EPA on the same day via e-mail. The public comment period expired 30 days from the date of publication. No comments were received during this period. The permit is now being issued final.